

**2005 Annual Compliance Report**  
**of**  
**Public Water System Violations**  
**in**  
**The State of Maine**

Submitted  
15 December 2006

Carlton Gardner  
Compliance Manager  
Maine Drinking Water Program  
Department of Health and Human Services

# **2005 Annual Compliance Report**

## **I. Overview**

## **II. Calendar Year 2005 Narrative Summary of Violations**

1. Total Coliform (Bacteria) Rule
2. Volatile Organic Contaminants (Phase II/V Rule)
3. Synthetic Organic Contaminants (Phase II/V Rule)
4. Inorganic Contaminants (Phase II/V Rule)
5. Lead and Copper Rule
6. Radionuclides Rule
7. Surface Water Treatment Rule
8. Interim Enhanced Surface Water Treatment Rule
9. Stage 1 Disinfectant / Disinfection By-Products Rule
10. Consumer Confidence Rule
11. Filter Backwash Recycle Rule
12. Long Term 1 Enhanced Surface Water Treatment Rule

## **III. Summary of Violations by Rule**

## **IV. General PWS Inventory Information**

## **V. Detailed List of all Violations issued in 2005**

## I. Overview

### **The Maine Drinking Water Program: An Overview**

The Environmental Protection Agency (EPA) established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (SDWA). Under the SDWA and the 1986 Amendments, EPA set national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCL) and Maximum Disinfectant Residual Levels (MRDL). For some regulations, EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in water.

The agency also regulates how often public water systems (PWS) monitor their water for contaminants and report the monitoring results to the states or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data for future regulatory development.

PWS are required to notify the public when they have violated these regulations. The 1996 Amendments to the SDWA require public notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects, and steps that the PWS is undertaking to correct the violation and possibility of alternative water supplies during the violation.

The SDWA allows states and territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. For a state to receive primacy, EPA must determine that the state meets certain requirements laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that they can enforce the program requirements.

The 1986 SDWA Amendments gave Indian Tribes the right to apply for and receive primacy. EPA currently administers PWSS Programs on all Indian lands except the Navajo Nation, which was granted primacy in late 2000.

### **Annual State PWS Report**

Each quarter, primacy states submit data to the Safe Drinking Water Information System (SDWIS/FED), an automated database maintained by EPA. The data include, but are not limited to PWS inventory information, the incidence of Maximum Contaminant Level, Maximum Residual Disinfectant Level, monitoring, treatment technique violations, and information on enforcement activity related to those violations. Section 1414(c)(3) of the Safe Drinking Water Act requires states to provide EPA with an annual report of violations of the primary drinking water standards. This report provides the numbers of violations in each of six categories: MCL, MRDL, treatment techniques, variances and exemptions,

significant monitoring violations, and significant consumer notification violations. Data retrieved from SDWIS/FED form the basis of this report.

### **Public Water System**

A public water system (PWS) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. There are three types of PWS. PWS can be community (such as towns), non-transient non-community (such as schools or factories), or transient non-community systems (such as rest stops or parks). For this report, when the acronym “PWS” is used, it means systems of all types, unless specified in greater detail.

### **Maximum Contaminant Level**

Under the SDWA, the EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCL).

### **Maximum Residual Disinfection Level**

The EPA sets national limits on residual disinfectant levels in drinking water to reduce the risk of exposure to disinfectant byproducts formed when public water systems add chemical disinfectant for either primary or residual treatment. These limits are known as Maximum Residual Disinfection Levels (MRDL).

### **Treatment Techniques**

For some regulations, the EPA establishes treatment techniques (TT) in lieu of an MCL to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, bacteria, and turbidity.

### **Variances and Exemptions**

A primacy state can grant a PWS a variance from a primary drinking water regulation if the characteristics of the raw water sources reasonably available to the PWS do not allow the system to meet the MCL. To obtain a variance, the system must agree to install the best available technology, treatment techniques, or other means of limiting drinking water contamination that the EPA Administrator finds are available (taking costs into account), and the state must find that the variance will not result in an unreasonable risk to public health. A variance must be reviewed not less than every 5 years to determine if the PWS remains eligible.

A state with primacy can grant an exemption temporarily relieving a PWS of its obligation to comply with an MCL, treatment technique, or both if the system’s noncompliance results from compelling factors (which may include economic factors) and the system was in operation on the effective date of the MCL or treatment technique requirement. The state will

require the PWS to comply with the MCL or treatment technique as expeditiously as practicable, but not later than 3 years after the otherwise applicable compliance date.

### **Monitoring**

A PWS is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL. If a PWS fails to have its water tested as required or fails to report test results correctly to the primacy agent, a monitoring violation occurs.

### **Significant Monitoring Violations**

For this report, significant monitoring violations are generally defined as any major monitoring violation that occurred during the calendar year of the report. A major monitoring violation, with rare exceptions, occurs when no samples were taken or no results were reported during a compliance period.

### **Consumer Notification**

Every Community Water System is required to deliver to its customers a brief annual water quality report. This report is to include some educational material, and will provide information on the source water, the level of any detected contaminants, and compliance with drinking water regulations.

### **Significant Consumer Notification Violations**

For this report, a significant public notification violation occurred if a community water system completely failed to provide its customers the required annual water quality report.

## II. Calendar Year 2005 Narrative Summary of Violations

### 1. **Total Coliform (Bacteria) Rule**

There were 290 Maximum Contaminant Level violations incurred among 209 PWS, and 1375 Failure to Monitor/Report violations incurred among 667 PWS.

### 2. **Volatile Organic Contaminants (VOC) (Phase II/V Rule)**

There were 2 Maximum Contaminant Level violations and there were 20 Failure to Monitor/Report violations incurred among 22 PWS. It should be noted that one Failure to Monitor/Report violation covers all of the 21 regulated VOC because all the VOC are included in one sample. If a violation had been issued for each regulated VOC not tested for in 2005, the total number of violations would have been 420.

### 3. **Synthetic Organic Contaminants (Phase II/V Rule)**

There were 6 Monitoring/Reporting violations among 6 systems for the synthetic organic contaminants (SOC) group test for annual, quarterly, or monthly monitoring periods.

### 4. **Inorganic Contaminants (IOC) (Phase II/V Rule)**

There were 6 Maximum Contaminant Level violations incurred by 4 PWS. Four of these PWS exceeded the Maximum Contaminant Level for Nitrate and they have corrected problems with their existing nitrate removal systems. Two PWS exceeded the Maximum Contaminant Level for Arsenic.

There were 278 Nitrate and 122 nitrite Failure to Monitor/Report violations incurred for annual, quarterly, or monthly monitoring periods. There were 8 Failure to Monitor/Report violations for the inorganic chemical (IOC) group test which includes arsenic, barium, cadmium, chromium, mercury, and selenium. There were 2 fluoride Treatment Technique violations for 1 PWS. (Fluoride is regulated in community water systems only.) There were 10 Failure to Monitor/Report violations among 9 systems for the IOC group test that includes antimony, beryllium, cyanide, and thallium.

**5. Lead and Copper Rule**

There were 26 Treatment Technique violations incurred among 25 PWS and 115 Failure to Monitor/Report violations incurred among 92 PWS.

**6. Radionuclides Rule**

There were 9 Maximum Contaminant Level violations among 9 systems and 11 Failure to Monitor/Report violations among 11 systems.

**7. Surface Water Treatment Rule**

There was one Treatment Technique violation and zero Failure to Monitor/Report violations.

**8. Interim Enhanced Surface Water Treatment Rule**

There were no violations.

**9. Stage 1 Disinfectants / Disinfection By-Products Rule**

There were 88 Maximum Contaminant Level violations incurred among 29 PWS. 52 of these were for haloacetic acids and 36 of these were for trihalomethanes. There were 5 Monitoring and Reporting violations among 3 systems.

**10. Consumer Confidence Rule**

There were 38 significant Consumer Notification violations incurred by 30 PWS.

**11. Filter Backwash Recycle Rule**

There were no violations.

**12. Long Term 1 Enhanced Surface Water Treatment Rule**

There were no violations.

### III. Summary of Violations by Rule

(Maine Summary Data Report)

#### **IV. General PWS Inventory Information**

Tabulation of Public Water Systems in Maine by Type and Total Population Served  
as of December 15, 2006.

<b><u>PWS Type</u></b>	<b><u>Number of Active Systems</u></b>	<b><u>Population Served</u></b>
Community	387	625,664
Non-Transient, Non-Community	375	71,040
Transient, Non-Community	1197	189,835
Bottled Water	166	N/A
<b>Total Regulated</b>	<b>2125</b>	<b>886,539</b>

## **V. Detailed List of all Violations issued in 2005**

(Maine Detail Data report)